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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,177	10/04/2004	Robert Alexander Howell	BAE 3055	6771
7590 KRAMER & AMADO, P.C. Suite 240 1725 Duke Street Alexandria, VA 22314				
EXAMINER CULBRETH, ERIC D				
ART UNIT 3616		PAPER NUMBER		
MAIL DATE 05/30/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/510,177

Applicant(s)

HOWELL ET AL.

Examiner

Eric Culbreth

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9,11,12 and 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9,11,12 and 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features of claims 20-24 (the discontinuity) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2024 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 20-24 recite the limitation "the fully returned flanges" in lines 2-3. There is no clear antecedent basis for this limitation in the claims. The claims from which these claims depend recite a fully returned segment of a flange portion.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-5, 9, 11-12 and 14-28 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Komiya US4798397 in view of Layman US1390659, both of record.

Komiya discloses a vehicular suspension arm (control arm 2) comprising a metal component that has a structure I-beam section (best seen in Figure 3; column 2, lines 53-55) and openings at both ends 2a, 2b able to accept various vehicle components. Komiya does not specifically disclose the I-beam shaped vehicular suspension arm being formed from two stamped components. Layman discloses a link in Figure 16 an upper sheet metal stamped component (left side of component in Figure 16; orientation

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of the I-beam cross section is a matter of design choice absent some showing of criticality in the invention) with an outer face (left face) and a first inner face (right face), and comprising a first central web portion (vertical portion) with opposite sides (upper and lower sides of vertical portion) and first upstanding flange portions (horizontal portions at opposite ends of web) at the sides of the first web portion. Layman further discloses a lower sheet metal stamped component (right component in Figure 16) with a second outer face (right face) and a second inner face (left face) and comprising a central web portion (vertical portion) with two opposite sides (upper and lower sides of vertical opposite ends of web) at the opposite sides of the second web portion. The first and second inner faces contact each other along a substantial portion of the first and second web portions (Figure 16), and the upper and lower stamped components are able to be rigidly attached to each other to create a structural I-beam section (see Figure 16), wherein the thickness of each upstanding flange portion is at least equal to the combined thickness of the first and second web portions (in a similar manner to applicant's invention). The upper and lower stamped components are press-formed from sheet metal of uniform thickness (page 1, lines 12-14; Figure 16), and each upstanding flange portion comprises a fully returned segment of the sheet metal (in a similar manner to applicant's claimed invention), whereby the thickness of each upstanding flange is at least double the thickness of each web portion (Figure 16). The upper and lower components are press formed from sheet aluminum, sheet steel, or similar sheet metal materials (though specific sheet metal is not disclosed, "similar sheet materials" is sufficiently broad to embody any sheet metal). The upper and lower

components are rigidly attached to each other along the first and second inner faces in a back to back configuration using bolting, welding, bonding, riveting or similar fastening means (welding and brazing; page 1, lines 49-51, 105-108). A gap (as can be seen between the joined inner faces and the joined flanges on opposite ends of the web portions) is able to accomodate a welded joint (butt, fillet or various other welded joints), the upper and lower components rigidly attached to each other by means of the welded joint (page 1, lines 49-51, 105-108; Figure 16; the specific type of weld joint is an obvious matter of design choice). Openings (see Figures 1-7) are able to accept various components. There is a discontinuity in the flanges (a bulge) at 41. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suspension arm of Komiya such that it comprised sheet metal stamped components as claimed in view of Layman in order to provide a link that possesses great strength while being extremely lightweight and inexpensive to produce (Layman, page 1, lines 15-20).

5. Claims 1-5, 9-, 11-12 and 14-28 as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Seksaria et al US 20040075234A1 (of record) in view of Layman.

Seksaria et al disclose a vehicular suspension arm (control arm 10) comprising an aluminum metal component (member 14) that has a structural I-beam section (best seen in Figure 4) and openings (within ears 66, 68) able to accept various vehicle components. Seksaria et al do not disclose specifically the I-beam shaped vehicular

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suspension arm being formed two stamped components. Layman teaches a link as described above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the suspension arm of Seksaria et al to include sheet metal stamped components as claimed as taught by Layman so as to provide a link that possesses great strength while being of extremely light weight and inexpensive to produce (Layman, page 1, lines 15-20).

Response to Arguments

6. Applicant's arguments with respect to claim 1-5, 9, 11-12, and 14-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Culbreth whose telephone number is 571/272-6668. The examiner can normally be reached on Monday-Thursday, 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 571/272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric Culbreth
Primary Examiner
Art Unit 3616

/Eric Culbreth/
Primary Examiner, Art Unit 3616

Application Number**Application/Control No.**

10/510,177

Examiner

Eric Culbreth

**Applicant(s)/Patent under
Reexamination**

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